

AMENDMENTS

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An information-processing device for a communication source that performs tunnel communication with a communication destination device ~~for communication destination~~, said information processing device comprising:

a tunnel communication part for performing the tunnel communication with encapsulated communication target data ~~encapsulated~~;

an identifier acceptor for accepting a communication destination device identifier for identifying ~~[[a]]~~ the communication destination device ~~at the communication destination~~;

an identifier storage part for storing a communication source device identifier for identifying the information-processing device; and

an address determination part for determining an address used for the communication target data~~[[,]]~~ according to the communication destination device identifier and the communication source device identifier.

2. (currently amended) ~~An~~ The information-processing device as claimed in claim 1, wherein the address determination part determines ~~an~~ the address used for the communication target data~~[[,]]~~ by selecting the address from a plurality of predetermined addresses.

3. (currently amended) ~~An~~ The information-processing device as claimed in claim 2, wherein the address determination part compares the communication destination device identifier with the communication source device identifier[[,]] and selects ~~an~~ the address used for the communication target data according to a result of the comparison-~~result~~.

4. (currently amended) An information-processing device for a communication source that performs tunnel communication with a communication destination device ~~for communication destination~~, comprising:

a tunnel communication part for performing the tunnel communication with encapsulated communication target data-~~encapsulated~~;

a ~~judgement~~ judgment part for ~~judging~~ determining whether the information-processing device is a caller or a callee in the tunnel communication; and

an address determination part for determining an address used for the communication target data[[,]] according to the [[a]] determination by the ~~judgement~~ judgment part.

5. (currently amended) ~~An~~ The information-processing device as claimed in claim 4, wherein the address determination part determines ~~an~~ the address used for the communication target data by selecting from a plurality of predetermined addresses.

6. (currently amended) An information-processing device for a communication source that performs tunnel communication with a communication destination device ~~for communication destination~~, comprising:

a tunnel communication part for performing the

tunnel communication with encapsulated communication
target data ~~encapsulated~~;

an identifier acceptor for accepting ~~an~~ a
communication destination device identifier for
identifying a the communication destination device ~~at the~~
~~communication destination~~;

an identifier storage part for storing a
communication source device identifier for identifying
the information-processing device;

a tunnel communication identifier acceptor for
accepting a tunnel communication identifier for
identifying the tunnel communication; and

an address determination part for determining an
address used for the communication target data[[,]]
according to the communication destination device
identifier, the communication source device identifier,
and the tunnel communication identifier.

7. (currently amended) ~~An~~ The information-processing
device as claimed in claim 6, wherein the address
determination part determines a part of an address used
for the communication target data according to the
communication destination device identifier and the
communication source device identifier, and determines ~~an~~
~~either~~ another part of the ~~an~~ address used for the
communication target data according to the tunnel
communication identifier.

8. (currently amended) An information-processing device
for a communication source that performs tunnel
communication with a communication destination device ~~for~~
~~communication destination~~, comprising:

a tunnel communication part for performing the
tunnel communication with encapsulated communication

target data ~~encapsulated~~;

a ~~judgement~~ judgment part for determining ~~judging~~ whether the information-processing device is a caller or a callee in the tunnel communication;

a tunnel communication identifier acceptor for accepting a tunnel communication identifier for identifying the tunnel communication; and

an address determination part for determining an address used for the communication target data, according to ~~[[a]]~~ the determination by the ~~judgement~~ judgment part and ~~to~~ the tunnel communication identifier.

9. (currently amended) ~~An~~ The information-processing device as claimed in claim 8, wherein the address determination part determines a part of ~~an~~ the address used for the communication target data according to the tunnel communication identifier, and determines ~~an-other~~ another part of ~~an~~ the address used for the communication target data according to ~~[[a]]~~ the determination by the ~~judgement~~ judgment part.

10. (currently amended) ~~An~~ The information-processing device as claimed in any one ~~from~~ of claims 1, 4, 6, and 8, through 9, wherein the address determination part determines at least a part of ~~an~~ the address used for the communication target data~~[[,]]~~ by selecting from a plurality of predetermined addresses.

11. (currently amended) ~~An~~ The information-processing device as claimed in any one ~~from~~ of claims 1, 4, 6, and 8, through 9, wherein the tunnel communication part performs two or more tunnel communications with two or more destination communication devices ~~for communication destination~~, further comprising:

a detection part for detecting ~~that~~ whether two or more addresses used for the communication target data are the same ~~agree~~ in the two or more tunnel communications; and

an address changing part for changing ~~an address~~ at least one of the addresses used for the communication target data if the detection part detects that two or more addresses are the same ~~agree~~.

12. (currently amended) ~~An~~ The information-processing device as claimed in any one ~~from~~ of claims 1, 4, 6, and 8, through 9, further comprising:

an address change information receiver for receiving address change information including ~~that is~~ information related to an address change; and

an address changing part for changing ~~an~~ the address used for the communication target data, according to the address change information.

13. (currently amended) ~~An~~ The information-processing device as claimed in any one ~~from~~ of claims 1, 4, 6, and 8, through 9, wherein the tunnel communication part performs two or more tunnel communications with two or more devices for a communication destination or destinations, further comprising:

a detection part for detecting ~~that~~ whether two or more addresses ~~agree~~ that are used for the communication target data are the same in the two or more tunnel communications;

an address agreement information transmitter for transmitting address agreement information showing that addresses are the same ~~agree~~, if the detection part detects that two or more addresses are the same; ~~agree~~;

an address change information receiver for receiving

address change information including that is information related to address change; and

an address changing part for changing ~~an~~ the address used for the communication target data[[,]] according to the address change information.

14. (currently amended) ~~An~~ The information-processing device as claimed in any one ~~from~~ of claims 1, 4, 6, and 8, through 9, further comprising an address output part for outputting ~~an~~ the address that determined by the address determination part ~~determined~~.

15. (currently amended) ~~An~~ The information-processing device as claimed in claim 14, wherein the address output part transmits ~~an~~ the address determined by ~~that~~ the address determination part ~~determined~~.

16. (currently amended) A communication system comprising:

an information-processing device as claimed in any one ~~from~~ of claims 1, 4, 6, and 8, through 9;

a the communication destination device ~~at the communication destination~~; and

a server that performs a process for establishing tunnel communication performed between the information-processing device and a the communication destination device ~~at the communication destination~~.

17. (currently amended) A server comprising:

an identifier acceptor for accepting a first device identifier for identifying a first information-processing device and a second device identifier for identifying a second information-processing device;

an address determination part for determining a

first address of the first information-processing device and a second address of the second information-processing device, both addresses used for encapsulated communication target data ~~encapsulated~~ in a tunnel communication performed between the first information-processing device and the second information-processing device[[,]] according to the first device identifier and the second device identifier that the identifier acceptor accepted; and

an address output part for outputting the first address and the second address ~~that~~ determined by the address determination part ~~determined~~.

18. (currently amended) [[A]] The server as claimed in claim 17, wherein the address determination part determines the first address and the second address[[,]] by selecting ~~given~~ the addresses from a plurality of predetermined addresses.

19. (currently amended) A server as claimed in claim 18, wherein the address determination part compares the first device identifier with the second device identifier and selects one or both of the addresses according to the comparison result.

20. (currently amended) A server comprising:

a ~~judgement~~ judgment part for determining, for a tunnel communication between a first information-processing device and a second information-processing device, ~~judging~~ which is a caller or callee, ~~a first information-processing device or a second information-processing device, both performing tunnel communication;~~

an address determination part for determining a first address of the first information-processing device

and a second address of the second information-processing device, wherein both addresses are used for encapsulated communication target data ~~eneapsulated~~ in the tunnel communication performed between the first information-processing device and the second information-processing device[[,]] according to the [[a]] determination by the ~~judgement~~ judgment part; and

an address output part for outputting the first address and the second address ~~that~~ determined by the address determination part ~~determined~~.

21. (original) A server as claimed in claim 20, wherein the address determination part determines the first address and the second address by selecting from a plurality of predetermined addresses.

22. (currently amended) A server comprising:

an identifier acceptor for accepting a first device identifier for identifying a first information-processing device and a second device identifier for identifying a second information-processing device;

a tunnel communication identifier acceptor for accepting a first device identifier for identifying first information-processing device and a second device identifier for identifying a second information-processing device;

an address determination part for determining a first address of the first information-processing device and a second address of the second information-processing device, wherein both addresses are used for encapsulated communication target data ~~eneapsulated~~ in a tunnel communication performed between the first information-processing device and the second information-processing device[[,]] according to the first device identifier and

the second device identifier, and wherein both identifiers are accepted by the identifier acceptor[[,]] ~~and~~ according to a tunnel communication identifier accepted by the tunnel communication identifier acceptor; and

an address output part for outputting the first address and the second address ~~that~~ determined by the address determination part ~~determined~~.

23. (currently amended) [[A]] The server as claimed in claim 22, wherein the address determination part determines:

a part of an address used for the communication target data[[,]] according to the first device identifier and the second device identifier; and

~~an other~~ another part of ~~an the~~ address used for the communication target data[[,]] according to the tunnel communication identifier.

24. (currently amended) A server comprising:

a ~~judgement~~ judgment part for determining, in a tunnel communication between a first information-processing device and a second information-processing device, ~~judging~~ which is a caller or callee, ~~a first information-processing device or a second information-processing device, both performing tunnel communication;~~

a tunnel communication identifier acceptor for accepting a tunnel communication identifier for identifying the tunnel communication performed between the first information-processing device and the second information-processing device;

an address determination part for determining a first address of the first information-processing device and a second address of the second information-processing

device, both addresses used for encapsulated communication target data ~~encapsulated~~ in the tunnel communication performed between the first information-processing device and the second information-processing device~~[[,]]~~ according to ~~[[a]]~~ the determination by the ~~judgement~~ judgment part and according to a tunnel communication identifier accepted by the tunnel communication identifier acceptor; and

an address output part for outputting the first address and the second address ~~that~~ determined by the address determination part ~~determined~~.

25. (currently amended) ~~[[A]]~~ The server as claimed in claim 24, wherein the address determination part determines a part of an address used for the communication target data according to the tunnel communication identifier, and determines ~~an other~~ another part of ~~an~~ the address used for the communication target data according to a determination by the ~~judgement~~ judgment part.

26. (currently amended) ~~[[A]]~~ The server as claimed in any one of claims 22 and 24, ~~through 25~~, wherein the address determination part determines at least a part of ~~an~~ the address used for the communication target data~~[[,]]~~ by selecting from a plurality of predetermined addresses.

27. (currently amended) ~~[[A]]~~ The server as claimed in any one of claims 17, 20, 22, and 24, ~~through 25~~, wherein the address output part transmits the first address and the second address to the first information-processing device and the second information-processing device.

28. (original) A communication system comprising:
a server as claimed in any one of claims 17, 20, 22,
and 24;~~through 25;~~

a first information-processing device that performs
tunnel communication using the first address for the
communication target data; and

a second information-processing device that performs
tunnel communication with the first information-
processing device using the second address for the
communication target data.

29. (currently amended) A server comprising:

an address agreement information receiver for
receiving address agreement information including that is
information showing that two or more addresses are the
same agree that are used for encapsulated communication
target data ~~encapsulated~~ in two or more tunnel
communications;

an address change information composition part for
composing address change information including that is
information related to the address change so that ~~the~~
address similarity ~~agreement~~ is resolved; and

an address change information transmitter for
transmitting the address change information.

30. (currently amended) A method of determining an
address, comprising [[a]] the step of determining an
address ~~for determining an address~~ used for encapsulated
communication target data ~~encapsulated~~ in a tunnel
communication performed between ~~the~~ a first information-
processing device and ~~the~~ a second information-processing
device, wherein said determining is according to a first
device identifier for identifying a first information-
processing device and ~~to~~ a second device identifier for

identifying a second information-processing device.

31. (currently amended) [[A]] The method of determining an address as claimed in claim 30, further comprising a step of ~~an identifier for~~ accepting the first device identifier and/or the second device identifier, wherein the step of determining an address determines the address using the first device identifier and/or the second device identifier, ~~both accepted in the accepting of an identifier.~~

32. (currently amended) A method of determining an address, comprising:

A judging step of determining ~~judging for judging~~ which of a first information-processing device and a second information-processing device performing tunnel communication is a caller or a callee, ~~a first information-processing device or a second information-processing device, both performing tunnel communication;~~ and

a step of determining an address ~~for determining an address~~ used for encapsulated communication target data ~~encapsulated in the~~ tunnel communication performed between the first information-processing device and the second information-processing device~~[[,]]~~ according to [[a]] the determination by the judging step.

33. (currently amended) A method of determining an address, comprising [[a]] the step of determining an address ~~for determining an address~~ used for communication target data encapsulated in a tunnel communication performed between ~~the~~ a first information-processing device and ~~the~~ a second information-processing device~~[[,]]~~ according to a first device identifier for

identifying a first information-processing device, ~~to~~ a second device identifier for identifying a second information-processing device, and ~~to~~ a tunnel communication identifier for identifying the tunnel communication performed between the first information-processing device and the second information-processing device.

34. (currently amended) ~~[[A]]~~ The method of determining an address as claimed in claim 33, further comprising ~~[[a]] the step of accepting an identifier for~~ accepting the first device identifier and/or the second device identifier, wherein the step of determining an address determines the address using the first device identifier and/or the second device identifier ~~accepted in the step of accepting an identifier.~~

35. (currently amended) ~~[[A]]~~ The method of determining an address as claimed in one of claims 33 and 34, further comprising ~~[[a]] the step of accepting a tunnel communication identifier for~~ accepting the tunnel communication identifier, wherein the step of determining an address determines the address~~[[,]]~~ using the tunnel communication identifier accepted in the step of accepting a the tunnel communication identifier.

36. (currently amended) A method of determining an address, comprising:

a judging step of determining ~~judging for judging~~ which of a first information-processing device and a second information-processing device performing tunnel communication is a caller or a callee, ~~first information-processing device or second information-processing device, both performing tunnel communication;~~ and

a step of ~~determining an address for~~ determining an address used for encapsulated communication target data ~~encapsulated in the~~ tunnel communication performed between the first information-processing device and the second information-processing device[[,]] according to ~~an~~ a determination by the judging ~~step of judging~~, and according to a tunnel communication identifier for identifying tunnel communication performed between the first information-processing device and the second information-processing device.

37. (currently amended) [[A]] The method of determining an address as claimed in claim 36, further comprising a step of ~~accepting a tunnel communication identifier for~~ accepting the tunnel communication identifier, wherein the step of determining an address determines the address using the tunnel communication identifier accepted in the step of accepting a tunnel communication identifier.

38. (currently amended) A method of changing an address that is used in an information-processing device for a communication source[[,]] performing two or more tunnel communications with two or more destination devices ~~for communication destination~~, comprising:

a step of ~~detecting for~~ detecting ~~that~~ whether two or more addresses are the same agree that are used for respective encapsulated communication target data ~~encapsulated in the two or more tunnel communications;~~ and

a step of ~~changing an address for~~ changing an address used for the communication target data when ~~it is~~ detected the step of detecting detects that two or more addresses are the same ~~agree in the step of detecting~~.

39. (currently amended) A method of changing an address that is used in an information-processing device for a communication source[[,]] performing tunnel communication with a destination device ~~for communication destination~~, said method comprising:

a step of ~~receiving address change information for~~ receiving address change information that is related to an address change; and

a step of ~~changing an address for~~ changing an address used for the communication target data according to the address change information.

40. (currently amended) A method of changing an address that is used in an information-processing device for a communication source[[,]] performing two or more tunnel communications with two or more destination devices ~~for communication destination~~, said method comprising:

a step of ~~detecting for~~ detecting ~~that whether~~ two or more addresses are the same agree that are used for respective encapsulated communication target data ~~encapsulated~~ in the two or more tunnel communications;

a step of ~~transmitting address agreement information for~~ transmitting address agreement information showing address similarity agreement if ~~it is detected in the~~ step of detecting detects that two or more addresses are the same agree;

a step of ~~receiving address change information for~~ receiving address change information including that is information related to an address change; and

a step of ~~changing an address for~~ changing an the address used for the communication target data according to the address change information.

41. (currently amended) A method of changing an address,

comprising:

a step of ~~receiving address agreement information~~
~~for~~ receiving address agreement information showing that
two or more addresses are the same agree that are used
for encapsulated communication target data ~~encapsulated~~
in two or more tunnel communications;

a step of ~~composing address change information for~~
composing address change information that is related to
an address change so that ~~the~~ address similarity
~~agreement~~ is resolved; and

a step of transmitting the address change
~~information for transmitting the address change~~
~~information.~~

42. (currently amended) A program for making a computer
execute a step of ~~determining an address for~~ determining
an address used for encapsulated communication target
data ~~encapsulated~~ in a tunnel communication performed
between ~~the~~ a first information-processing device and ~~the~~
a second information-processing device[[,]] according to
a first device identifier for identifying [[a]] the first
information-processing device and ~~to~~ a second device
identifier for identifying [[a]] the second information-
processing device.

43. (currently amended) [[A]] The program as claimed in
claim 42, further for making a computer execute a step of
~~accepting an identifier for~~ accepting the first device
identifier and/or the second device identifier, wherein
the step of determining an address determines the
address[[,]] using the first device identifier and/or the
second device identifier ~~accepted in the step of~~
~~accepting an identifier.~~

44. (currently amended) A program for making a computer execute:

a judging step of determining ~~judging for judging~~ which of a first information-processing device and a second information-processing device performing a tunnel communication is a caller or a callee, ~~a first information-processing device or a second information-processing device, both performing tunnel communication;~~ and

a step of ~~determining an address for~~ determining an address used for encapsulated communication target data ~~encapsulated~~ in the tunnel communication performed between the first information-processing device and the second information-processing device[[,]] according to a determination in the judging ~~step of judging~~.

45. (currently amended) A program for making a computer execute a step of ~~determining an address for~~ determining an address used for encapsulated communication target data ~~encapsulated~~ in a tunnel communication performed between ~~the~~ a first information-processing device and a the second information-processing device[[,]] according to a first device identifier for identifying [[a]] the first information-processing device, ~~to~~ a second device identifier for identifying [[a]] the second information-processing device, and ~~to~~ a tunnel communication identifier for identifying the tunnel communication performed between the first information-processing device and the second information-processing device.

46. (currently amended) [[A]] The program as claimed in claim 45, further for making a computer execute a step of ~~accepting an identifier for~~ accepting the first device identifier and/or the second device identifier, wherein

the step of determining an address determines the address[[,]] using the first device identifier and/or the second device identifier ~~accepted in the step of accepting an identifier.~~

47. (currently amended) [[A]] The program as claimed in one of claims 45 and 46, further for making a computer execute a step of ~~accepting a tunnel communication identifier for~~ accepting the tunnel communication identifier, wherein the step of determining ~~an~~ the address determines the address[[,]] using the tunnel communication identifier accepted in the step of accepting a tunnel communication identifier.

48. (currently amended) A program for making a computer execute:

a judging step of determining ~~judging for judging~~ which of a first information-processing device and a second information-processing device performing tunnel communication is a caller or a callee, ~~first information-processing device or second information-processing device, both performing tunnel communication;~~ and

a step of ~~determining an address for~~ determining an address used for communication target data encapsulated in the tunnel communication performed between the first information-processing device and the second information-processing device[[,]] according to ~~an~~ a determination by the judging ~~step of judging~~, and ~~to~~ a tunnel communication identifier for identifying tunnel communication performed between the first information-processing device and the second information-processing device.

49. (currently amended) [[A]] The program as claimed in

claim 48, further for making a computer execute a step of ~~accepting a tunnel communication identifier for~~ accepting the tunnel communication identifier, wherein the step of determining an address determines the address[[,]] using the tunnel communication identifier accepted in the step of accepting a tunnel communication identifier.

50. (currently amended) A program for making a computer execute a process in an information-processing device for a communication source performing tunnel communication with two or more destination devices ~~for communication destination~~, said process comprising:

a step of ~~detecting for~~ detecting ~~that whether~~ two or more addresses are the same ~~agree~~ that are used for respective encapsulated communication target data ~~encapsulated~~ in the two or more tunnel communications; and

a step of ~~changing an address for~~ changing an address used for the communication target data if ~~it is detected in~~ the step of detecting detects that two or more addresses are the same ~~agree~~.

51. (currently amended) A program for making a computer execute a process in an information-processing device for a communication source performing tunnel communication with a destination device ~~for communication destination~~, said process comprising:

a step of ~~receiving address change information for~~ receiving address change information including ~~that is~~ information related to an address change; and

a step of ~~changing an address for~~ changing an address used for the communication target data according to the address change information.

52. (currently amended) A program for making a computer execute a process in an information-processing device for a communication source performing tunnel communication with two or more destination devices ~~for communication destination~~, said process comprising:

a step of ~~detecting for~~ detecting that whether two or more addresses are the same agree that are used for respective encapsulated communication target data ~~encapsulated~~ in the two or more tunnel communications;

a step of ~~transmitting address agreement information for~~ transmitting address agreement information showing address similarity ~~agreement~~ if it ~~is detected in the~~ step of detecting detects that two or more addresses are the same agree;

a step of ~~receiving address change information for~~ receiving address change information including ~~that is~~ information related to an address change; and

a step of ~~changing an address for~~ changing an the address used for the communication target data according to the address change information.

53. (currently amended) A program for making a computer execute:

a step of ~~receiving address agreement information for~~ receiving address agreement information showing that two or more addresses are the same agree that are used for encapsulated communication target data ~~encapsulated~~ in two or more tunnel communications;

a step of ~~composing address change information for~~ composing address change information that is related to an address change so that ~~the~~ address similarity ~~agreement~~ is resolved; and

a step of ~~transmitting address change information for~~ transmitting the address change information.